# 1.2 System configuration

## Components

A fully equipped SINUMERIK 810D consists of different components. These are listed below.

Table 1-2 Components of the 810D in the maximum configuration (without motors)

| Component | MLFB | Description |
|---|---|---|
| Mains supply module (MS) | See **References:** /PJU/ Configuration Manual Converters | Power supply module for powering the electronics and drives. Either unstabilized (OI 5 kW to 28 kW) or stablized as infeed/regenerative feedback module (I/R module) as from 16 kW to 120 kW; optional filter modules. |
| SINUMERIK 810D<br>– CCU box (3 axes)<br>– CCU box (2 axes) | 6FC5447-0AA00-0AA1<br>6FC5447-0AA01-0AA0 | Module racks for CCU integrated power modules: 1 x 18/36A (FSD) or 24/32A (MSD) and 2 x 6/12A (FSD), internal heat dissipation only<br>Module rack for the CCU integrated power modules: 2 x 9/18/A (FSD), internal/external heat dissipation |
| – CCU3.4 | 6FC5410-0AY03-1AA0 | like CCU3 but with PLC 314C-2DP |
| – CCU3 | 6FC5410-0AY03-0AA1<br>6FC5410-0AY03-0AA2 | CPU of the 810D contains:<br>NCK, PLC 315-2DP, communication functions, digital standard control<br>Additional functions:<br>– 16 MB DRAM, 2.5 MB SRAM<br>– Handling with 6 axes<br>– 2nd channel with 6 axes |
| Operator panel front [1] | | Display, keyboard and operation of the 810D |
| PCU 20/50/70 [1] | | Makes communication between operator and machine possible |
| Machine control panel [1] | | Operation of PLC-controlled machine functions of 810D |
| ISA adapter [1] | | Permits use of AT modules in conjunction with the PCU |
| Full CNC keyboard [1] | | Full keyboard connectable to PCU |
| Memory card (PCMCIA) | | Slot for PCMCIA card on the CCU.<br>PCMCIA card for software update (not 810DE). |
| Floppy disk unit [1] | | Built-in unit for connection to PCU |
| Cable distributor | 6FX2006-1BA02 | Connection of two handwheels and two probes to the CCU |
| Cable | | **References:** Catalog NC Z |
| Axis expansion plug-in unit left | 6FC5412-0FA12-0AA0 | For installation in a SIMODRIVE 611 D power module (1-axis) for axis expansion, place between I/R module and 810D<br>**References:** /PJU/, Configuration Manual Converters |
| Axis expansion plug-in unit | 6FC5412-0FA10-0AA0 | For installation in a SIMODRIVE 611 power module (1-axis or 2-axis),<br>**References:** /PJU/, Configuration Manual Converters |
| SIMATIC components | | See http://www.siemens.com/automation/simatic |
| Single I/O module | 6FC5411-0AA00-0AA0 | PLC I/O module with 64 inputs and 32 short-circuit-proof outputs |
| NCU terminal block [1] | 6FC5211-0AA00-0AA0 | Rapid digital and analog NC I/Os on the drive bus of the SINUMERIK 810D |
| Handheld unit [1] | 6FX2007-1AC.. | Handheld unit with handwheel, EMERGENCY STOP button, key-switch, override, enabling buttons, display, free keys, connection via MPI bus and cable distributor |

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